

EXEMPTION EVALUATION FORM
(Revised as of May 20, 1998)

PART 1 APPLICANT

1A. Exemption Number :

Application Number:

Project Officer :

1B. Date of Application:

1C. Name of Applicant:

Title:

Company Name:

Address:

Phone Number:

1D. U.S. Agent for foreign applicant or Consultant Name:

Company name:

Address:

Phone Number:

1E. Summary of What Applicant is Requesting:

To authorize transportation in commerce of ...

To authorize the manufacture, marking and sale of ...

1F. Regulation(s) exempted:

1G. Modes of Transportation:

1 Motor Vehicle () 2 Rail Freight ()

3 Cargo Vessel () 4 Cargo Aircraft ()

5 Passenger Aircraft ()

PART 2 REVIEW FOR DOCKETING

() Application contains sufficient information to support docketing.

() Application is incomplete or unnecessary and should be returned for the following reason(s).

PART 3 HAZARDOUS MATERIALS

3A. Hazardous Materials to be shipped:

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group

3B. Is the hazardous material capable of being detonated? (If
No - go to 3C)

If so, under what conditions?

(1) What special precautions have been taken to prevent
these conditions in transportation?

(2) Has the hazardous material been classed as an
explosive? _
! Has it been tested and approved under § 173.56?

! Is stabilization required and what type?

3C. Other risks presented by the material that warrant special
assessment. (e.g. flammable or toxic gases produced upon
contact with water, material can initiate or enhance a fire,
article or device contains an ignition source)

PART 4 PACKAGING

4A. Is the applicant seeking an exemption from the packaging
requirements?
(If No - Go on to Part 5)

4B. ___ Non authorized specification package.

- ___ Authorized Specification package with quantity or size variation.
- ___ Material change.
- ___ Over authorized pressure.
- ___ Non specification package. Most comparable spec. package.

4C. What are the possible failure modes of the packaging?

Is the material of construction appropriate?

Will the packaging integrity be sufficient?

In the case of a pressurized packaging, will the package adequately contain any pressure that might develop?

Does packaging meet the performance requirements for air transportation?

Have evaluation of tests results shown the package to be equivalent?

4D. Are special handling measures needed (specify)?

PART 5 SPECIAL TRANSPORT AND INFORMATIONAL CONTROLS

5A. Is the applicant seeking an exemption from Special Transport and Informational Controls? (If No - go to Part 6)

5B. Indicate control from which variance is sought. (i.e., placarding requirements, etc.)

5C. What controls have been offered or might be appropriate to mitigate risks otherwise presented with the exemption?

5D. What special data collection and reporting requirements are needed to document experience and exemption performance?

PART 6 SHIPPING EXPERIENCE

6A. What has the generally shipping experience been with this type of material, package, and operation?

6B. Can any rough estimate be made on the extent of the use of

this exemption? How many shipments will be made and how much material will be transported?

6C. Is this a new package with no shipping experience?

PART 7 SAFETY AND RISK ASSESSMENT

7A. 49 CFR § 107.105(d) prescribes requirements for justification of an exemption through comparisons with established levels of safety and risk assessment. Has the applicant demonstrated equivalent levels of safety or provided an appropriate risk analysis?

7B. What are the hazards (worst case) posed by the proposed exemptions? What could go wrong? Are the risks significant? What is the degree of uncertainty as to likelihood or consequences?

7C. What are the benefits to the public and the applicant of granting the exemption? What trade-offs have been made?

7D. Does this exemption (and other similar exemptions) point to the need for possible regulatory changes? If so what other information is needed to support a regulatory change.

PART 8 DOCKET COMMENTS/INFORMATION

8A. Date checked: ____

8B. Comments: ____ (If Yes, summarize)

8C. Has **CONFIDENTIAL** or **PROPRIETARY** information (49 CFR 107.5) been considered in this application?

PART 9 OVERALL EVALUATION & RECOMMENDATION

Provide standard of equivalency and rationale supporting equivalent level of safety or comment on additional requirements needed to establish equivalency. Include main issues, evidence (i.e. tests), and technical conclusions. See note in Part VI concerning confidential information.

Office of Hazardous Materials Technology (OHMT)

Office of Hazardous Materials Exemptions and Approvals (OHMEA)

Office: DHM-

Project Officer/Date: _____

Reviewer/Date: _____

Office Director/Date: _____

Attachment #1

Hazard Sources:

1. Explosives
 - o primary mass detonation
 - o fragmentation
 - o pyrotechnic
 - o propellant/rocket motors
 - o devices/actuators
 - o blasting agents
2. Gases
 - o flammable
 - o compressed (stored energy)
 - o poisonous
 - o oxidizer/reactive
 - o asphyxiation
 - o cryogenic gas (cold)
3. Flammable liquids
4. Flammable solid
 - o wetted explosives
 - o self reactive/strongly exothermal decomposition
 - o readily combustible solid/
 - ignites through friction
 - rapid burning rate
 - many metal powders

Spontaneously combustible material

 - o pyrophoric
 - o self heating material/spontaneous ignition
 - o Water reactive materials
5. Oxidizers
Organic peroxides
Reducers*
6. Poison
 - o chemical (oral, dermal and inhalation routes of ingestion)
 - o infectious substance (oral, dermal and inhalation routes of ingestion)
7. Radioactive materials
 - o direction radiation
 - o oral ingestion

- o inhalation
- o fissile materials (Pu238, Pu239, Pu241 and U235)
- 8. Corrosive
 - o to human skin
 - o to metal
- 9. Environmental
 - o bio accumulation
 - o not readily bio-degradable
 - o toxic to fish, birds, animals, plants
- 10. Hot material (elevated temperature material)
Cold material*
- 11. Electrical current*
 - o batteries*
 - o generators*
 - o capacitors*
 - o static charge*
- 12. Radiation sources*
 - o thermal*
 - o electromagnetic/radio sources/micro wave sources*
 - o ionizing/x-ray sources*
 - o high flux magnetic fields*
 - o ultraviolet*
 - o high intensity light (laser)*

* not currently regulated as a hazardous material

Attachment #2

Hazardous Processes and Initiating Events:

1. Acceleration
2. Contamination
3. Corrosion
4. Electrical
 - o shock
 - o thermal
 - o inadvertent activation
 - o power source failure
 - o electromagnetic radiation
6. Explosion
7. Fire
8. Heat and temperature
 - o high temperature
 - o low temperature
 - o temperature variations
9. Leakage
10. Moisture
 - o high humidity
 - o low humidity
11. Oxidation
12. Reduction
13. Decomposition
14. Polymerization
15. Pressure
 - o high pressure
 - o Low pressure
 - o rapid pressure change
16. Mechanical shock
17. Vibration
18. Containment (packaging failure)
 - o leakage
 - o permeation
 - o brittle failure
 - o plastic failure
 - o seal, gaskets
 - o seams, joints
 - o closures, fittings
19. Change of orientation
 - o effect of static head
 - o effect of pad pressure
 - o effect of dynamic surge
20. Chemical compatibility with packaging

Attachment #3

Risk Factors for Materials, Articles (Devices) and Initiation
Devices for Articles:

- o effect of normal transportation environment
- o effect of accident environment
 - fire, excessive heat
 - shock, impact
 - crush
 - electric current
- o effect of release in transport
- o effect of water egress
- o effect of reaction with water

Additional consideration for article with initiation devices

- o does device have two independent means to prevent initiation?
- o consequence if initiated
 - heat produced -- is external temperature above 205C (400F)-- is packaging material combustible
 - electrical current or potential produced
 - gas produced -- flammable, toxic, oxidizer, corrosive? -- retained or released? -- flow rate? pressure?
 - other -- see list of hazard sources